

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2004/001772

A. CLASSIFICATION OF SUBJECT MATTER												
Int. Cl. ⁷ : A61K 31/44, A61K 31/4355, A61P 25/04												
According to International Patent Classification (IPC) or to both national classification and IPC												
B. FIELDS SEARCHED												
Minimum documentation searched (classification system followed by classification symbols) IPC AS ABOVE												
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched AU – Inventor/Applicant Search												
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Derwent World Patent Index, Medline (flupirti*/katadolon/metanor/trancopal dolo)& (neuropath*/inflamm*/allodyn*/hyperalgesi*)												
C. DOCUMENTS CONSIDERED TO BE RELEVANT												
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.										
X A	EP 0207 193 A2 (Degussa AG.) 7 January 1987. See page 2 column 1.	1 – 3, 13 – 15, 23 – 25, 40										
X A	US 4 778 799 B2 (Tibes, U et al.) 18 October 1988. See column 12.	40										
X A	CA 2 314 746 A1 (Asta Medica AG.) 3 February 2001. See page 15.	1 – 5, 13 – 17, 23 – 27, 40, 41										
X A	US 6 610 324 B2 (Stoll, Andrew L.) 26 August 2003. See columns 5 and 6.	1, 2, 13, 14, 23, 24, 36, 40										
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex												
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"E" earlier application or patent but published on or after the international filing date</td> <td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	"P" document published prior to the international filing date but later than the priority date claimed	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention											
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art											
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family											
"P" document published prior to the international filing date but later than the priority date claimed												
Date of the actual completion of the international search 23 February 2005		Date of mailing of the international search report - 1 MAR 2005										
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929		Authorized officer K.G. ENGLAND Telephone No : (02) 6283 2292										

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	Friedel, H. A et al, "Flupirtine a review of its pharmacological properties, and therapeutic efficacy in pain states" Drugs, 45 (4) pp548 – 569 (1993)	1, 2, 13, 14, 23, 24, 40.
X A	Herrmann, W.M. et al, "On the adverse reactions and efficacy of long-term treatment with flupirtine: preliminary results of an ongoing twelve-month study with 200 patients suffering from chronic pain states in arthrosis or arthritis." Postgraduate Medical Journal (1987) 63, 87 – 103.	1, 2, 13, 14, 23, 24, 40.
X A	Gribkoff, Valentin K. "The therapeutic potential of neuronal KCNQ channel modulators" Expert opinion on therapeutic targets, (2003 Dec) 7 (6) 737-48. See pages 741 and 742.	40
X A	Schuster, G et al, "Flupirtine: A review of its neuroprotective and behavioural properties" CNS Drug Reviews 4 (2) pp 149 – 164	40

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. Claims 1, 2, 11, 12, 23, 24, 34, 35, 36 and 40 to 42, and 38 and 39 (in part) define one invention, use of flupirtine alone in treatment of neuropathic or inflammatory pain. (See extra sheet)

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: III

2. Claims 3 to 6, 25 to 27 and 37, and 38 and 39 (in part), use of flupirtine in combination with another agent, in treatment of neuropathic or inflammatory pain.
3. Claims 7 to 10, 16 to 18 and 29 to 33, use of flupirtine, an opioid and another active agent.
4. Claims 13 to 15 and 19 to 22 use of flupirtine and three other agents in combination.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
EP	0207193	AU	52548/86	DD	242349	DE	3545201
		DK	596785	ES	8702142	FI	855016
		GR	860120	HU	40566	JP	62004229
		PT	81848	ZA	8509770		
US	4778799	AU	52604/86	CA	1259260	DD	244293
		DE	3601195	DK	30486	EP	0189788
		ES	8705762	FI	860304	GR	860178
		HU	39603	JP	61172819	PT	81885
		ZA	8600481				
CA	2314746	AU	72717/00	BR	0012942	CZ	20020411
		EP	1242078	HR	20020192	HU	0301296
		NO	20020364	PL	354484*	SK	1712002
		WO	0108682	ZA	200200493		
US	6610325	AU	12441/99	CA	2319011	EP	1052987
		FR	2774291	WO	9939708		
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.							
END OF ANNEX							